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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,818	03/26/2001	Donald J. Palmer	10003978-1	7827

7590 09/02/2005  
HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
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EXAMINER ALVAREZ, RAQUEL	
ART UNIT 3622	PAPER NUMBER

DATE MAILED: 09/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/817,818

**Applicant(s)**

PALMER ET AL.

**Examiner**

Raquel Alvarez

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2001.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-29 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/23/04, 10/18/04.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Claims 1-29 are presented for examination.

#### **Claim Rejections - 35 USC § 101**

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-16, 26-29 are rejected under 35 U.S.C. 101 because the claimed invention is not in the technological arts.

Examiner submits that the phrase "technological arts" has been created and used by the courts to offer another view of the term "useful arts." See *In re Musgrave*, 167 USPQ (BNA) 280 (CCPA 1970). Hence, the first test of whether an invention is eligible for a patent is to determine if the invention is within the "technological arts."

Further, despite the express language of §101, several judicially created exceptions have been established to exclude certain subject matter as being patentable subject matter covered by §101. These exceptions include "laws of nature," "natural phenomena," and "abstract ideas." See *Diamond v. Diehr*, 450, U.S. 175, 185, 209 USPQ (BNA) 1, 7 (1981). However, courts have found that even if an invention incorporates abstract ideas, such as mathematical algorithms, the invention may nevertheless be statutory subject matter if the invention as a whole produces a "useful, concrete and tangible result." See *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* 149 F.3d 1368, 1973, 47 USPQ2d (BNA) 1596 (Fed. Cir. 1998). This addresses the second test under 35 U.S.C. § 101 of whether or not an invention is eligible for a patent. The Manual of Patent Examining Procedure reiterates this point.

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More specifically, MPEP § 2106(II)(A) states, "The claimed invention as a whole must accomplish a practical application. That is, it must produce a 'useful, concrete and tangible result.' *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02." Furthermore, "Only when the claim is devoid of any limitation to a practical application in the technological arts should it be rejected under 35 U.S.C. 101." (MPEP § 2106(II)(A))

This "two prong" test was evident when the Court of Customs and Patent Appeals (CCPA) decided an appeal from the Board of Patent Appeals and Interferences (BPAI). See *In re Toma*, 197 USPQ (BNA) 852 (CCPA 1978). In *Toma*, the court held that the recited mathematical algorithm did not render the claim as a whole non-statutory using the Freeman-Walter-Abele test as applied to *Gottschalk v. Benson*, 409 U.S. 63, 175 USPQ (BNA) 673 (1972). Additionally, the court decided separately on the issue of the "technological arts." The court developed a "technological arts" analysis:

The "technological" or "useful" arts inquiry must focus on whether the claimed subject matter...is statutory, not on whether the product of the claimed subject matter...is statutory, not on whether the prior art which the claimed subject matter purports to replace...is statutory, and not on whether the claimed subject matter is presently perceived to be an improvement over the prior art, e.g., whether it "enhances" the operation of a machine. *In re Toma* at 857.

In *Toma*, the claimed invention was a computer program for translating a source human language (e.g., Russian) into a target human language (e.g., English). The court found that the claimed computer implemented process was within the "technological art" because the claimed invention was an operation being performed by a computer within a computer.

The decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* never addressed this prong of the test. In *State Street Bank & Trust Co.*, the court found that the “mathematical exception” using the Freeman-Walter-Abele test has little, if any, application to determining the presence of statutory subject matter but rather, statutory subject matter should be based on whether the operation produces a “useful, concrete and tangible result.” See *State Street Bank & Trust Co.* at 1374. Furthermore, the court found that there was no “business method exception” since the court decisions that purported to create such exceptions were based on novelty or lack of enablement issues and not on statutory grounds. Therefore, the court held that “[w]hether the patent's claims are too broad to be patentable is not to be judged under §101, but rather under §§102, 103 and 112.” See *State Street Bank & Trust Co.* at 1377. Both of these analyses go towards whether the claimed invention is non-statutory because of the presence of an abstract idea. *State Street* never addressed the first part of the analysis, i.e., the “technological arts” test established in *Toma* because the invention in *State Street* (i.e., a computerized system for determining the year-end income, expense, and capital gain or loss for the portfolio) **was already determined to be within the technological arts** under the *Toma* test. This dichotomy has been recently acknowledged by the Board of Patent Appeals and Interferences in affirming a §101 rejection finding the claimed invention to be non-statutory for failing the technological arts test. See *Ex parte Bowman*, 61 USPQ2d (BNA) 1669 (BdPatApp&Int 2001).

What is indeed important to note in the *Bowman* decision is that the Board acknowledged the dichotomy of the analysis of the claims under 35 U.S.C. § 101,

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thereby emphasizing the fact that not only must the claimed invention produce a "useful, concrete and tangible result," ***but that it must also be limited to the technological arts*** in order to be deemed statutory under the guidelines of 35 U.S.C. § 101. The Board very explicitly set forth this point:

[1] We agree with the examiner. Appellant has carefully avoided tying the disclosed and claimed invention to any technological art or environment. As noted by the examiner, the disclosed and claimed invention is directed to nothing more than a human making mental computations and manually plotting the results on a paper chart [answer, page 5]. The Examination Guidelines for Computer-Related Inventions are not dispositive of this case because there is absolutely no indication on this record that the invention is connected to a computer in any manner.

Despite the express language of 35 U.S.C. §101, several judicially created exceptions have been excluded from subject matter covered by Section 101. These exceptions include laws of nature, natural phenomenon, and abstract ideas. See *Diamond v. Diehr*, 450 U.S. 175, 185, 209 USPQ 1, 7(1981). We interpret the examiner's rejection as finding that the claimed invention before us is nothing more than an abstract idea because it is not tied to any technological art or environment. Appellant's argument is that the physical (even manual) creation of a chart and the plotting of a point on this chart places the invention within the technological arts.

The phrase "technological arts" has been created to offer another view of the term "useful arts." The Constitution of the United States authorizes and empowers the government to issue patents only for inventions which promote the progress [of science and] the useful arts. We find that the invention before us, as disclosed and claimed, does not promote the progress of science and the useful arts, and does not fall within the definition of technological arts. The abstract idea which forms the heart of the invention before us does not become a technological art merely by the recitation in the claim of "transforming physical media into a chart" [sic, drawing or creating a chart] and "physically plotting a point on said chart."

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In summary, we find that the invention before us is nothing more than an abstract idea which is not tied to any technological art, environment, or machine, and is not a useful art as contemplated by the Constitution of the United States. The physical aspects of claim 1, which are disclosed to be nothing more than a human manually drawing a chart and plotting points on this chart, do not automatically bring the claimed invention within the technological arts. For all these reasons just discussed, we sustain the examiner's rejection of the appealed claims under 35 U.S.C. § 101. See *Ex parte Bowman*, 61 USPQ2d (BNA) 1669, 1671 (BdPatApp&Int 2001)

Similarly, in the present application, claims 1-16 and 26-29 are deemed to be non-statutory because they are not limited to the technological arts; all recited steps could be performed manually by a human, thereby reinforcing the fact that Appellant's invention fails to "[p]romote the progress of science and useful arts," as intended by the United States Constitution under Art. I, §8, cl. 8 regarding patent protection.

In conclusion, the Examiner submits that Appellant's claims do not meet the technological arts requirement under 35 U.S.C. § 101, as articulated in *Musgrave*, *Toma*, and *Bowman* as well as the Manual of Patent Examining Procedure.

### **Claim Rejections - 35 USC § 112**

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 12 contradicts the limitation of claim 11 which it depends from. For purpose of examination, claim 12 will be examined as starting with the selection of the customer and then retrieving the customer billing information for the customer.

**Claim Rejections - 35 USC § 102**

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1-13, 16-17, 19-29 are rejected under 35 U.S.C. 102(a) as being anticipated by Libman (6,076,072 hereinafter Libman).

With respect to claims 1, 8-9, 13, 16 Libman teaches a method for providing targeted advertising to a customer (col. 1, lines 13-22). Retrieving billing information for the customer (i.e. retrieving client information from a host vehicle, the host vehicle being a bill (col. 3, lines 10-14 and col. 10, lines 45-67); retrieving an item of customer information relating to the customer (col. 7, lines 14-22); correlating the item of customer information to an advertisement (i.e. based on the customer's information, the system selects variable Information/advertisement/marketing product to offer to the particular client)(col. 7, lines 14-22); retrieving the advertisement (col. 17, lines 24 to col. 18, lines 1-67); and forming a billing statement containing the billing information for the customer and the advertisement (i.e. forming a client communication containing the host vehicle/bill for the customer combined with the variable



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information/advertisement/marketing product into a single communication)(col. 6, lines 7-23).

With respect to claims 17, 23-24, Libman teaches a system for providing targeted marketing to a customer (col. 1, lines 13-22). A database system for storing data, the data including customer billing information, customer information and marketing information (i.e. "host information" includes the type of account and activities pertaining to the customer account, "client information" contains customer information such as name, address, phone number, etc. , "financial product" contains marketing information on the different marketing product to be offered to the customers) (col. 5 , lines 50 to col. 7, lines 1-22); a computer system configured to create customer billing statements, the computer configured to retrieve customer billing information for a selected customer from the database system (col. 7, lines 14-22); retrieve customer information for the selected customer from the database (See figure 2); retrieve marketing information correlated to the customer information from the database system (See Figure 2); and assemble a billing statement for the selected customer, the billing statement including customer billing information for the selected customer and marketing information correlated to the customer information ((i.e. forming a client communication containing the host vehicle/bill for the customer combined with the marketing product /advertisement into a single communication)(col. 6, lines 7-23).

With respect to claim 26, Libman teaches a billing statement for providing marketing information to a customer (col. 1, lines 13-22). A billing portion displaying account information for a selected customer (i.e. the host vehicle displays information on the client)(col. 6, lines 65 to col. 7, lines 1-14); a marketing portion displaying selected marketing information targeted to the selected customer, the selected marketing information being chosen from a collection of possible marketing information based upon a correlation between the selected marketing information and information related to the characteristic of the customer (i.e. marketing product to the customer based on the customer information)(col. 12, lines 44-67).

With respect to claims 2-3, 19, 27, Libman further teaches that the customer information includes demographic information consisting of age, sex, address, telephone number, marital status, education level, income level, number of children, sex and age of children (col. 5, lines 50-61).

With respect to claims 4-5, 20-21, 29 Libman further teaches that the customer information includes personal information consisting of hobbies, interests, spending habits (col. 11, lines, property ownership (col. 11, lines 1-18).

With respect to claims 6-7, 28, Libman further teaches that the customer information includes information regarding consumption of goods and services by the

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customer including identity of goods and services purchased by the customer from other providers (i.e. buying habit data is obtained for the customers such as previous items purchased)(col. 11, lines 63-65).

Claims 10 and 25 further recite indicating whether the advertisement would appeal to a person with a particular preference and comparing the item of the customer information to the advertisement (i.e. taking into account customer preferences and hobbies to determine the likelihood of acceptance to the product/service/advertisement)(col. 11, lines 1-180).

With respect to claims 11-12, Libman further teaches selecting the customer from a group of customers before retrieving billing information for the customer (i.e. the customer is pre-selected from a group of customer before his billing information is retrieved)(See Figure 4).

With respect to claims 15, 22 Libman further teaches that the customer information is obtained from an outside source (i.e. the information on the customers is obtained from **other sources**)(col. 23, lines 7-23).

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**Claim Rejections - 35 USC § 103**

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 14, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Libman in view of Official Notice.

With respect to claims 14, 18 the claims further recite that the information is collected by survey . Official notice is taken that it is old and well known to collect information from customers via survey. For example, customers are often ask to fill out a questionnaire or the like asking to identify items of interest in order for marketing companies to target product and services to customers based on customer's answers. It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to have included collecting information by the customer from survey in order to obtain the above mentioned advantage.

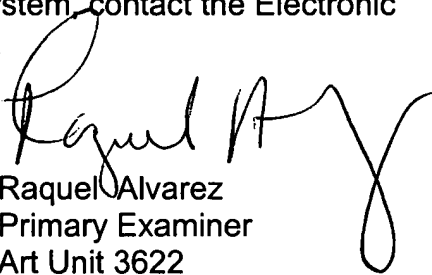
**Point of contact**

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raquel Alvarez whose telephone number is (571)272-6715. The examiner can normally be reached on 9:00-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric w. Stamber can be reached on (571)272-6724. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Raquel Alvarez  
Primary Examiner  
Art Unit 3622

R.A.  
8/17/2005